

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re:

Patent application of

Group Art Unit:

Volkhard Lindner

1644

Serial No.:

10/634,108

Examiner:

Filed:

August 4, 2003

Maher Haddad

_

1106101 1, 11003

Attorney Docket No.:

For:

COMPOSITIONS, METHODS AND KITS

53689-5006**-**DI1

RELATING TO REMODEL

SUPPLEMENTAL DECLARATION OF VOLKHARD LINDNER UNDER 37 C.F.R. § 1.131

I, Volkhard Lindner, declare the following:

- 1. I have reviewed the office action mailed December 6, 2006, and the Examiner's rejection of claims 21, 37 and 43 as being anticipated by U.S. Pat. Publication 2004/0146862 of Mack et al. (hereinafter "Mack"), which has an earliest apparent priority date of March 15, 2000. This supplemental declaration is offered as further proof to establish that the subject matter of the instant invention was made in the United States prior to the earliest apparent priority date of Mack.
- 2. I am the sole inventor for the pending claims in the above-captioned application (hereinafter "Applicant"). As such, I have the personal knowledge to set forth the facts stated herein.
- 3. The instant patent application is a divisional application of U.S. Patent Application No. 09/692,081 filed on October 19, 2000, now issued as U.S. Patent No. 6,630,325 ("the '325 patent").
- 4. SEQ ID NO:4, set forth in the instant specification, was identically set forth as SEQ ID NO:4 in the parent application, now the '325 patent.

- 5. I identified and sequenced SEQ ID NO:4 prior to March 15, 2000.
- 6. Exhibit A, attached herewith, is a series of chromatograms representing the sequence identification of the oligonucleotide sequence of SEQ ID NO:4. Prior to my invention of SEQ ID NO:4, the "Expressed sequence tag" (EST) sequences resident in the publicly available databases included only 1) an incomplete oligonucleotide fragment representing the 3' end of REMODEL and 2) an incomplete oligonucleotide fragment representing a non-overlapping segment of the 5' end of REMODEL. The intervening sequence, between the two known sequences, was not known prior to my invention of SEQ ID NO:4. As part of the present invention, I cloned the missing intervening sequence by 5' RACE-PCR (rapid amplification of mRNA ends by polymerase chain reaction). Two clones (#3 and #4, as set forth in the chromatograms) were obtained and the oligonucleotide sequence was identified from both ends of the polynucleotide using Sp6 and T7 DNA primers. Sequencing using the Sp6 primer led me to identify SEQ ID NO:4 of the present invention.
- 7. Exhibit B, attached herewith, is the textual sequence data for the sequences as determined and described in paragraph 6 above.
- 8. The invention set forth in the presently-pending claims was made at Maine Medical Center Research Institute, 22 Bramhall St., Portland, Maine, 04103, United States of America, while I was a resident of the state of Maine.

I declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; that these statements are made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code; and that willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date

April 4 th, 2007

Volkhard Lindner, M.D., Ph.D.

Lindee

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re:

Patent Application of

: Group Art Unit: 1644

Volkhard Lindner

Appln. No:

10/634,108

: Examiner: Maher M. Haddad

Filed:

August 4, 2003

: Attorney Docket No.:

For:

COMPOSITIONS, METHODS AND KITS: 53689-5006-DI1 (206295)

RELATING TO REMODEL

Exhibit A

Supplemental Declaration of Volkhard Lindner Under 37 C.F.R. § 1.131

Data Collection

File: h502 No3 Sp6.abl

Sample: h502 5'race #3 SP6

Inj. Number: Number of Points: 10240 Length: 816

6:11 AM Start Run Stop Run 9:07 AM Start Collection 7:07 AM Stop Collection 9:07 AM

Dyeset/Primer: DT POP6 dR Set-Any Primer

Medium Lot #: Medium Exp Date:

Instrument Name: ABI PRISM™ 310

Data Rate:

Collect Vers.: ABI PRISM 310 Collection 1.0.4

Data Analysis

Base Call Start: 1177 Peak 1 Location: 1177

Ave. Signal Intensity: G (110), A (141), C (133), T (117

d-Rhodamine filter E Base Call End: 10240

Basecaller Version: Version 3.0bl

Base Spacing Used: 12.34 Base Spacing Calculated: 12.34 Length to Detector: 50 Tube Position: Al

Module File Name: Seq POP6 (1 mL) E

1 CHAATTCTAA NAGNNTTNTT CAANTCGNGN ACCGNAGCTC 41 GNGATCCACT NTANCNACGG CCGCCCGGTG TGCTGGAATT 81 CGGCTTCTAT TTGAACNAAT CTTTGTAAAT GTACACTCCG 120 121 CANTITCCCA AGATCINATG CCATAATTCA ATGAACTCCA 160 161 TGAACACTGC TTGTAGTTNG GGTGTCCAGN GCTCCTCAAA 200 201 GCTTTCCCTC AGNUNNINGN GTTTTCNCNT TTGAATCCAT 240 241 CCCGACCTGG GATCCCANGT GTACCCGGAA TGCCATTGGC 281 CCCAGGGCTC CCGTCTCGAC CAGGCACTCT NGCTGGCCCT 320 321 TGTAAGCACA TTCCATTATA CAGGAAAAAA AAAAAAAAA 360 361 TCGACATCGA TACGCGTTGG TCAAGCCGAA TTCTGCANAT 400 401 AATCCATCAC ATTGNGGGGC CGCTCGANCA TGCATCNANN 440 441 AGGGGCCCAT TTCNNCCCTA TATTGAGTCG TATTTACANT 480 481 TCACTGGGCC GTCGTTTTAC AANCGTCCNT GACNGGGAAA 520 521 ACCCTGTGNG TINCCCAAAN INANTINCNC ITTGCANCCA 560 561 AATCCCCCTT THCHGCCATG TTGGHGTATT NANCTHHAAG 600 601 AGGNCCTNAC CGTTTNGCCT TTNCNATANA NTTNCCTATC 640 NTNGAATGNG GGAAATGGCN TNNCTCCCTG NTAATCNGGT 641 680

681 NCATTNAAGG CCCGTNGGGN TTTTGGNGGT TAAAANTTTG 720
721 TGTTNANTNT ANNTTTNNCN ACANANCCTA TNNTGCNGNT 760
761 NNTTTTTNAT TTNNTCCTTN TTTTCACCN CANGTATCCC 800
801 NNTTTTCCNC CTTTGN

111001 / 216102006101

Feature key:

Range(s):

Description:

Model 013

h502 No3 Sp6.ab1

Signal G:110 A:141 C:133 T:117 DT POP6(dR Set-Any Primer)

d-Rhodamine filter E

Points 1177 to 10240 Pk 1 Loc: 1177

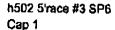
Page 3 of 4

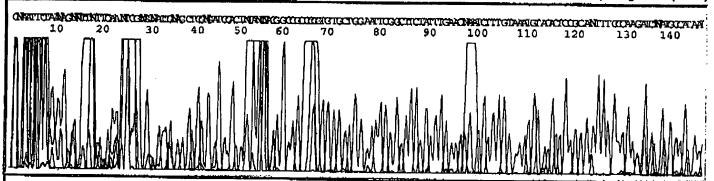
) PM AM

Spacing: 12.33(12.33)

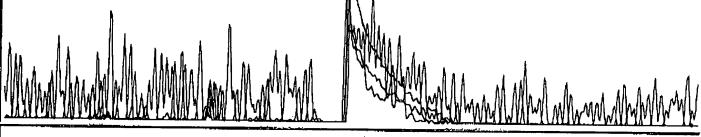




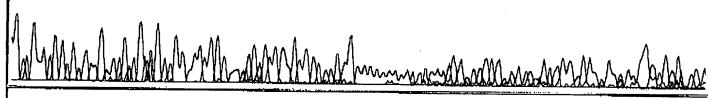








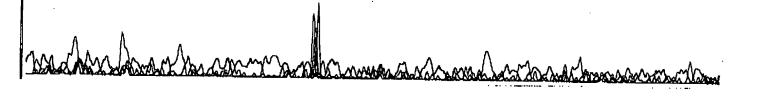
290 300 310 320 330 340 350 360 370 380 390 400











Model 013 Version 3.7 ABI-CE2 3.0

h502 No3 Sp6.ab1

Signal G:110 A:141 C:133 T:117 DT POP6(dR Set-Any Primer)

d-Rhodamine filter E

Page 4 of 4 12:00 PM

; 6:11 AM

Version 3.0b1

h502 5'race #3 SP6 Cap 1

Points 1177 to 10240 Pk 1 Loc: 1177

Spacing: 12.33(12.33)

TCCCCCCAMPAGNICATING CONTINUE TO THE TOTAL CN

Data Collection

File: h502 No4 Sp6.ab1

Sample: h502 5'race #4 SP6

Inj. Number: 3
Number of Points: 10240
Length: 917

Start Run 11:53 AM
Stop Run 2:39 PM
Start Collection 12:38 PM
Stop Collection 2:39 PM

Dyeset/Primer: DT POP6{dR Set-Any Primer}

Medium Lot #:
Medium Exp Date:

Instrument Name: ABI PRISM™ 310

Data Rate: 1

Collect Vers.: ABI PRISM 310 Collection 1.0.4

Data Analysis

Base Call Start: 874
Base Call End: 10240
Peak 1 Location: 874

Ave. Signal Intensity: G (120), A (162), C (147), T (129

Matrix Name: d-Rhodamine filter E

Basecaller: ABI-CE2 3.0
Basecaller Version: Version 3.0bl

Base Spacing Used: 11.25
Base Spacing Calculated: 11.25
Length to Detector: 50
Tube Position: A5

Module File Name: Seq POP6 (1 mL) E

ANNATCTGAA TATCGAANAC NATCTTCCAC NTCGGGGNAC 4 0 CGAAGCTCGN GTTCCACAGA CTAACGGCCG CNCGTGTGCT 41 ខា GGAATTCGGC TTCTATTTGA ANAATCTTTG TAAATGTACA 120 TCCGCATTTT CCCAAGATCT ATGCCATAAT TCAATGAACT 121 160 CCATGAACAC TCGCTTGTAG TTNGGGTGTC CAGGACTCCT 161 200 CAAAGCTTTC CCTCAGACAT TCCCCCTTTT CTCCTTTGAN 201 240 241 TCCATCCCGA CCTGGGGATC CCAGGTGTAC CCGGANTGCC 280 281 ATTGNGCCCC AGGGCTCCCG TCTCGACCAG GCACTCCTGC 320 321 TGGCCCTTGT AAGCACATTC CATTATACAG GGAAAAAAA 360 AAAAANAGTC CGACATCGAT ACGCGTGGGT CAANCCGANT 361 401 TCTGCACGAT ATCNATCACA CTGGCGGCCG CTCGAGCATG 440 441 CATCTAGAGG GCCCAATTCG CCCTTATANT GAGTCGTNTN 480 ACATTTCACT GNGCCGTCNT TTTACAACGT CTGTGTCTGG 481 5 2 0 GGAAANTCCT GNGCTTTACC CAATTTTAAT CGCCTTGCTA 521 560 NACATECENC TTTEECENAG TTGNEGTAAT ANCEGAAANG 561 600 601 GTCCNGCATN NATCGNCCTT GCAATATTTN NGCAGCCTGN 640 TNGNNANNTG GCCGCCCTG TTATCGGCCC TANGTCNCAT 641 680

681	GGGGGTGTTN	NTGGNTANCC	CNACCTGNCN	NTNANANTTT	720
721	CAGINGCCCI	ATACCCCANT	CTTTTCGCTT	TTTNCANTCT	760
761	TTCCTNNNAN	ATNTAGNGGN	TTCCANTTNN	TNNANANTGT	800
	GGGNGNNCNT				840
841	CCNNANTNAT				880
881	CTNCTCNNNG	NTNCTNCTTN	NNNTTGGTTC	CMTNNAN	927

Feature key:

Range(s);

Description:

Model 013 Version 3.7 **ABI-CE2 3.0** h502 No4 Sp8.ab1

Signal G:120 A:162 C:147 T:129 DT POP6(dR Set-Any Primer) d-Rhodamine filter E

Mon.

Page 3 of 4 12:00 PM

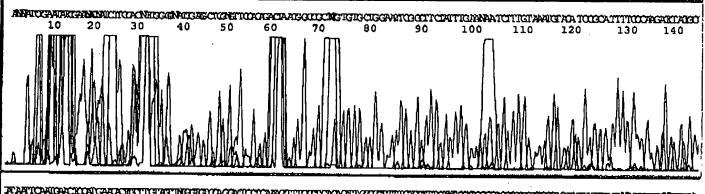
h502 5'race #4 SP6 Version 3.0b1 Cap 3

Fr

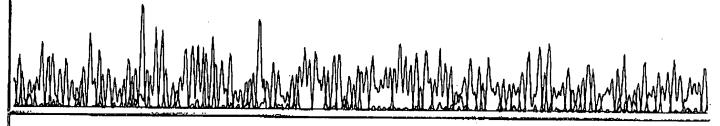
11:53 AM

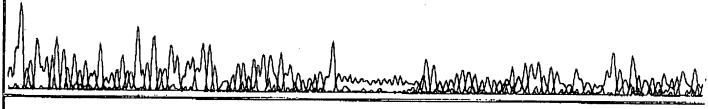
Points 874 to 10240 Pk 1 Loc: 874

Spacing: 11.25(11.25)

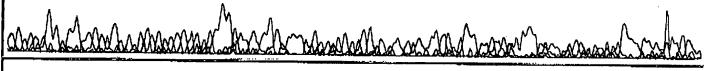


MOTIFICATION PROCESSATION AND AND AND THE STATE OF THE ST





CACACTEGOG GCCCCTCG AGCATCCATCTA CAGOGCCDAATTCGCC CHATANIG AGTOGTNIMCA TH'CACTCMCCG K'NITTIACAACGTCGAG TCHUGGAA ANICCHIM



ETTICCPATTEMICOCITYCIANACATCC NITTECCOAGTICNCFAATANCIAAMACONICAINATCNICTEC AA TAITINGCACCUMISMANICOCUCCU

ABISM PRISM

Model 013 Version 3.7 ABI-CE2 3.0

h502 No4 Sp6.ab1

Signal G:120 A:162 C:147 T:129 DT POP6(dR Set-Any Primer)

d-Rhodamine filter E

Points 874 to 10240 Pk 1 Loc: 874

Μc

Page 4 of 4 12:00 PM

11:53 AM

Spacing: 11.25(11.25)

PRISM ABI-CE2 3.0 h502 5'race #4 SP6 d-Rho
Version 3.0b1 Cap 3 Points

CHTACOCCE TANGEN PROCESSION FOR CETANINA CONTINUA PROTECTION PROCESSION FOR THE PROCESSION FOR THE PROPERTY OF THE PROCESSION FOR THE PROPERTY OF THE PROCESSION FOR THE PROPERTY OF THE PROCESSION FOR THE

Assertance of the second and the sec

NEXTS HINDER CHITTET (NIMEN N THE NAME RETESTICAL TO GENERAL METANTE CONTROL NO. 810 820 830 840 850 860 870 880 890 900 910

aluncher with a conservation and the conservation are a conservation and the conservation are a conservation and the conservation are a conservation and the conservation and the conservation are a conservation are a conservation and the conservation are a conservation are a conservation and the conservation are a conservation are a conservation and the conservation are a conservation are a conservation and the conservation are a conservation and the conservation are a conservation and the conservation are a conservation are a conservation and the conservation are a conservation are a conservation are a conservation are a conservation

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re:

Patent Application of

: Group Art Unit: 1644

Volkhard Lindner

Appln. No:

10/634,108

: Examiner: Maher M. Haddad

Filed:

August 4, 2003

: Attorney Docket No.:

For:

COMPOSITIONS, METHODS AND KITS: 53689-5006-DI1 (206295)

RELATING TO REMODEL

Exhibit B

Supplemental Declaration of **Volkhard Lindner** Under 37 C.F.R. § 1.131

The Same of the second second

h 5025 roce # 1276 Relation

4502 5 ree #3566